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EVALUATION OF AN OAK LEAF TIER, CROESIA SEMIPURPURANA, (KEARFOTT)

Inf.	Route	Act.
✓	_____	
	Fowler	
	Green	
	Ingleston	
	Johnson	
✓	Miller	
✓	Moore	
✓	Orton	
✓	_____	
	Schacht	
	Scheuble	
	Stump	
	File	

ON THE

WHITE SULPHUR RANGER DISTRICT

MONONGAHELA NATIONAL FOREST, WEST VIRGINIA

By

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## ABSTRACT

A survey of Croesia semipurpurana on a valuable 4,000 acre oak stand located on the White Sulphur Ranger District showed that defoliation and subsequent egg populations had decreased from 1966. Little defoliation is expected to occur in 1968.

## INTRODUCTION

An evaluation was initiated, at the request of Monongahela National Forest personnel in 1965, to assess the status of the oak leaf tier, Croesia semipurpurana (Kearfott), infesting stands on the White Sulphur District. Defoliation by the oak leaf tier was mostly confined to the one district. Although defoliation appeared light to moderate in 1967 (Hanson 67), an egg survey was needed to determine probably 1968 populations.

## METHODS

In 1966 a 4,000 acre oak stand on the White Sulphur District was sampled for oak leaf tier eggs and sampling points were rated as to defoliation class. This same stand was sampled again in August, 1967.

At each of the 15 sampling points (Fig.1) two 1-foot branch samples were taken from each of two trees classified as dominant or co-dominant. At the Field Office the eggs on the samples were counted with the aid of a microscope.

## RESULTS

When 1966 counts are compared with those of 1967 it can be observed that the average number of eggs per terminal foot of sample branch decreased in 80% of the plots (Table 1). Also of importance is that at 8 of the 10 points with high egg counts in 1966, egg numbers decreased substantially in 1967.

## CONCLUSIONS

With the decline of oak leaf tier egg populations, defoliation in 1968 should be insignificant over the 4,000 acre area sampled on the White Sulphur District.

## RECOMMENDATIONS

1. Re-survey the same area in 1968 by Forest Pest Control personnel.

## Reference

Hanson, J. B. Aerial Detection Survey, Monongahela National Forest 67-9, USDA, Forest Service, Delaware I&D Field Office, Delaware, Ohio

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Table 1. Average number of oak leaf tier eggs for the years 1966-67 on the terminal foot of branches at sampling points in the evaluation area.

Sampling Point No.	Avge. No. Eggs 1966	Avge. No. Eggs 1967
1	.25	4.50*
2	2.25	0
3	27.25 **	0
4	2.25	0
5	.25	0.25
6	25.75 **	3.00
7	53.00 **	.75
8	21.50	17.00
9	20.00 **	10.25
10	24.50	21.50
11	26.00 **	5.00
12	57.00 **	3.50
13	37.00 **	.50
14	25.75 **	0.00
15	5.00	6.25

\* Increase from 1966

\*\* Decreased substantially in 1967

DETAILED MAP OF EVALUATION AREA

SCALE 1/2" = 1 MILE

N  
1

WEST VIRGINIA  
VIRGINIA

POCAHONTAS Co.  
GREENBRIER Co.

LOCATION OF EVALUATION AREA

TO: MINNEHAHA SPRINGS

SHERWOOD  
LAKE

ANTHONY CREEK

NEOLA

TO:  
WHITE SULPHUR SPRINGS

SALE  
AREA

10

11

RUCKER GAP

12

13  
TO:  
CALLAGHAN  
Va.

14

15

WEST VIRGINIA  
VIRGINIA

WEST  
VIRGINIA

ELKINS

CHARLESTON

WHITE SULPHUR  
SPR.

GREEN-  
BRIER Co.

EVALUATION  
AREA